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### REMARKS

Claims 1, 14, and 24 have been amended. Claims 1 through 24 remain in the application.

The disclosure was objected because of an alleged informality therein. Applicants respectfully traverse this objection.

The specification has been amended on page 9, paragraph 00022, line 2 to delete the reference numeral "10" to correct the informality with respect to Figure 2. It is respectfully submitted that the specification is allowable over the objection.

Claims 1 through 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Marando et al. (U.S. Patent No. 6,016,603). Applicants respectfully traverse this rejection.

U.S. Patent No. 6,016,603 to Marando et al. discloses a method of hydroforming a vehicle frame component. FIGS. 3 and 4 show a tube 10 after the completion of a preliminary hydroforming operation. The hydroforming operation uses pressurized fluid to deform and expand the tube 10 into conformance with the die cavity of a first hydroforming die 11. To accomplish this, the tube 10 is filled with a pressurized fluid, typically a relatively incompressible liquid such as water. The pressure of the fluid is increased to a magnitude where the tube 10 is deformed outwardly into conformance with the die cavity. As a result, the tube 10 is deformed into the shape illustrated in FIGS. 3 and 4. Any conventional apparatus may be used to perform the preliminary hydroforming operation. FIG. 5 illustrates the preliminarily expanded tube 10 disposed within a second hydroforming die, indicated generally at 15, that is composed of a first die section 16 and a second die section 17. As with the first hydroforming die 11, the die sections 16 and 17 have respective cavity portions 16a and 17a formed therein that cooperate to form a hydroforming die cavity when the die sections 16 and 17 are moved into engagement with one another. In FIG. 5, the die sections 16 and 17 are shown in the process of being moved toward one another, as shown by the respective arrows. Thus, only the opposed upper and lower portions of the expanded tube 10 are shown as being engaged by the die sections 16 and 17. The inner surface of the die cavity of the second hydroforming die 15 preferably corresponds in cross sectional shape to the desired final shape for the tube 10. Marando et al. does not disclose a method of progressive hydro-forming of a tubular member in a multi-stage die by positioning a

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tubular member between open die halves mating with one another to define a first tubular cavity portion in a first stage of the multi-stage die, applying hydraulic pressure to expand and conform the tubular member to the first tubular cavity portion in the first stage, positioning the expanded tubular member between open die halves mating with one another to define a second tubular cavity portion in a second stage of the multi-stage die, and applying hydraulic pressure to expand and conform the expanded tubular member to the second tubular cavity portion in the second stage.

In contradistinction, claim 1, as amended, clarifies the invention claimed as a method of progressive hydro-forming of a tubular member in a multi-stage die. The method includes the steps of providing a tubular member and positioning the tubular member between open die halves mating with one another to define a first tubular cavity portion in a first stage of the multi-stage die. The method also includes the steps of progressively closing the die halves to progressively deform the tubular member within the first tubular cavity portion and applying hydraulic pressure to expand and conform the tubular member to the first tubular cavity portion in the first stage. The method includes the steps of separating the die halves, removing the expanded tubular member from the first tubular cavity portion, and positioning the expanded tubular member between open die halves mating with one another to define a second tubular cavity portion in a second stage of the multi-stage die. The method further includes the steps of progressively closing the die halves to progressively deform the expanded tubular member within the second tubular cavity portion and applying hydraulic pressure to expand and conform the expanded tubular member to the second tubular cavity portion in the second stage. The method includes the steps of separating the die halves and removing the final expanded tubular member from the second tubular cavity portion. Claims 14 and 24 have been amended similar to claim 1 and include the feature of a two-stage die.

A rejection grounded on anticipation under 35 U.S.C. § 102 is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A. 1972); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

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Marando et al. '603 does not disclose or anticipate the present invention of claims 1, 14, and 24. Specifically, Marando et al. '603 merely discloses a method of hydroforming a vehicle frame component in which a hydroforming operation uses pressurized fluid to deform and expand a tube into conformance with a die cavity of a first hydroforming die and the preliminarily expanded tube is disposed within a second hydroforming die for a second hydroforming operation. Marando et al. '603 lacks a method of progressive hydro-forming of a tubular member in a multi-stage die by positioning a tubular member between open die halves mating with one another to define a first tubular cavity portion in a first stage of the multi-stage die, applying hydraulic pressure to expand and conform the tubular member to the first tubular cavity portion in the first stage, positioning the expanded tubular member between open die halves mating with one another to define a second tubular cavity portion in a second stage of the multi-stage die, and applying hydraulic pressure to expand and conform the expanded tubular member to the second tubular cavity portion in the second stage. In Marando et al. '603, the hydroforming operation uses pressurized fluid to deform and expand the tube 10 into conformance with the die cavity of a first hydroforming die 11 and the preliminarily expanded tube 10 is disposed within a second hydroforming die 15 for a second hydroforming operation, and there is no single multi-stage die for progressive hydro-forming of a tubular member.

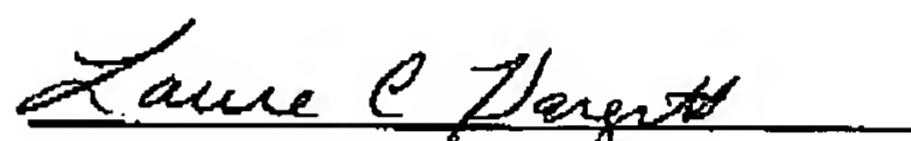
Marando et al. '603 fails to disclose the combination of a method of progressive hydro-forming of a tubular member in a multi-stage die including the steps of providing a tubular member, positioning the tubular member between open die halves mating with one another to define a first tubular cavity portion in a first stage of the multi-stage die, progressively closing the die halves to progressively deform the tubular member within the first tubular cavity portion, applying hydraulic pressure to expand and conform the tubular member to the first tubular cavity portion in the first stage, separating the die halves, removing the expanded tubular member from the first tubular cavity portion, positioning the expanded tubular member between open die halves mating with one another to define a second tubular cavity portion in a second stage of the multi-stage die, progressively closing the die halves to progressively deform the expanded tubular member within the second tubular cavity portion, applying hydraulic pressure to expand and conform the expanded tubular member to the second tubular cavity portion in the second stage, separating the die halves, and removing the final expanded tubular member from the

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second tubular cavity portion as claimed by Applicants. Therefore, it is respectfully submitted that claims 1, 14, and 24 and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. § 102(b).

Based on the above, it is respectfully submitted that the claims are in a condition for allowance, which allowance is solicited.

Respectfully submitted,

  
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